

## CLAIMS

1. A culture method in producing a copolyester by a microorganism

5        which comprises controlling a specific substrate feed rate of an oil or fat to be used as a carbon source at a constant value throughout the whole culture period.

2. A culture method in producing a copolyester by a microorganism

10        which comprises applying a different specific substrate feed rate of an oil or fat used as a carbon source between a cell growth phase and a polyester accumulation phase in a culture and controlling the rate at a constant value during the  
15        respective phases.

3. The culture method according to Claim 1 or 2  
      which comprises controlling the composition of the produced copolyester by selecting the species and/or the  
20        control value for the specific substrate feed rate.

4. The culture method according to any one of Claims 1 to 3,  
      wherein the oil or fat used as a carbon source contains  
25        at least one oil or fat selected from the group consisting of soybean oil, corn oil, cottonseed oil, palm oil, palm kernel oil, coconut oil and peanut oil, and fractionated oils obtained by fractionating these oils.

30        5. The culture method according to any one of Claims 1 to 4,  
      wherein the oil or fat used as a carbon source contains lauric acid in the constituent fatty acids, and  
      the culture is carried out under the condition phosphorus  
35        being restricted.

6. The method according to any one of Claims 1 to 5,  
wherein the microorganism is selected from the group  
consisting of microorganisms belong to the genus Ralstonia, the  
5 genus Pseudomonas, the genus Aeromonas, the genus Alcaligenes  
and the genus Escherichia.

7. The culture method according to any one of Claims 1  
to 6,  
10 wherein the microorganism is a transformed microorganism  
into which a polyester polymerase gene is incorporated.

8. The culture method according to any one of Claims 1  
to 7,  
15 wherein the copolyester contains 3-hydroxyhexanoic acid  
unit.

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